



WLG4-3F1482S04

W4

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
WLG4-3F1482S04	1042291

Other models and accessories → www.sick.com/W4

Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor	
Sensing range max.	0.01 m ... 1.5 m ¹⁾	
Sensing range	0.02 m ... 0.4 m ¹⁾	
Emitted beam	Light source	PinPoint LED ²⁾
	Type of light	Visible red light
	Light spot size (distance)	Ø 25 mm (200 mm)
Key LED figures	Wave length	650 nm
	Adjustment	Single teach-in button ³⁾
Special features	Stainless steel surface can be used as reflector	
Special applications	Detecting transparent objects	
AutoAdapt	✓	

¹⁾ Reflector PL80A.

²⁾ Average service life: 100,000 h at T_U = +25 °C.

³⁾ 2 s teach = 50 % switching threshold.

Electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾
Protection class	III
Digital output	
Type	PNP
Switching mode	Dark switching
Output current I_{max}	≤ 100 mA
Response time	< 0.5 ms ⁴⁾
Switching frequency	1,000 Hz ⁵⁾
Attenuation along light beam	> 8 %
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾

¹⁾ Limit values.

²⁾ May not fall below or exceed U_V tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ C = interference suppression.

⁸⁾ D = outputs overcurrent and short-circuit protected.

Mechanics

Housing	Rectangular
Design detail	Flat
Dimensions (W x H x D)	16 mm x 39.5 mm x 12 mm
Connection	Cable, 3-wire, 5 m ¹⁾
Connection detail	
Conductor size	0.14 mm ²
Cable diameter	Ø 3.4 mm
Length of cable (L)	5 m ¹⁾
Material	
Housing	Plastic, ABS
Front screen	Plastic, PMMA
Cable	Plastic, PVC
Weight	30 g

¹⁾ Do not bend below 0 °C.

Ambient data

Enclosure rating	IP67
Ambient operating temperature	-40 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C

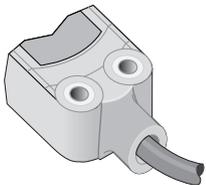
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
ECOLAB certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

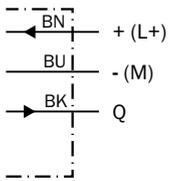
Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection type



Connection diagram Cd-043



Modified teach mode

Geänderter Teach Modus modified teach mode WLG4-3

Bitte neuen Teach-In-Mode ab Herstellungswoche **01/2013** berücksichtigen.

Teach-In-Taste drücken:

- **2 Sek.** für transparente Objekte (8% Schaltschwelle mit autom. Nachführung)
- **8 Sek.** für Standardanwendungen (Schaltschwelle 50%)

Teach-In-Mode **vor** Herstellungswoche **01/2013**

Teach-In-Taste drücken:

- **2 Sek.** (50% Schaltschwelle ohne Nachführung)
- **8 Sek.** für transparente Objekte (Schaltschwelle 10%)

Please consider new teach-in mode as of production week **01/2013**.

Press teach-in button:

- **2 sec.** for clear objects (8% threshold with continuous threshold adaption)
- **8 sec.** for standard mode (50% threshold)

Teach-In-Mode **before** production week **01/2013**.

Press teach-in button:

- **2 sec.** (50% threshold without continuous threshold adaption)
- **8 sec.** for clear objects (threshold 10%)

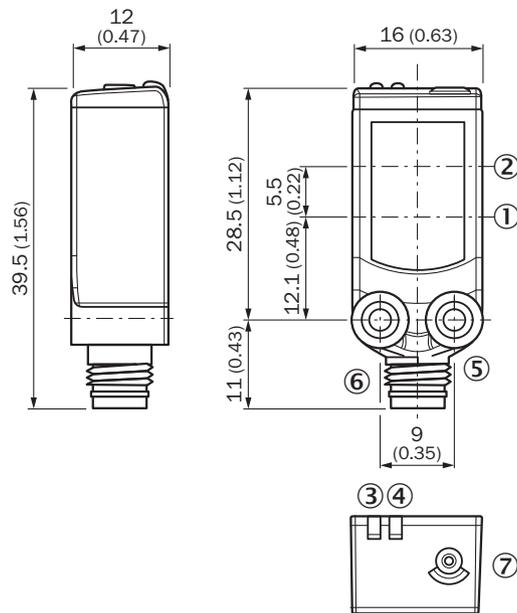
Bsp. Herstellungswoche 1309 = KW09/2013

eg production week 1309 = CW09/2013



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Dimensional drawing WLG4-3



Dimensions in mm (inch)

- ① Center of optical axis, sender
- ② Center of optical axis, receiver
- ③ Orange LED indicator: status of received light beam
- ④ LED indicator green: Supply voltage active
- ⑤ Threaded mounting hole M3
- ⑥ Connection
- ⑦ Teach-in button

Recommended accessories

Other models and accessories → www.sick.com/W4

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> • Description: Universal mounting bracket for reflectors • Dimensions (W x H x L): 85 mm x 90 mm x 35 mm • Material: Steel • Details: Steel, zinc coated • Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A 	BEF-WN-REFX	2064574
	<ul style="list-style-type: none"> • Description: Plate N08 for universal clamp bracket • Material: Steel, zinc diecast • Details: Zinc plated steel (sheet), Zinc die cast (clamping bracket) • Items supplied: Universal clamp (5322626), mounting hardware • Usable for: W100, W150, W4S, W4F, W8, W9-3, W8G, W8 Laser, W8 Inox, G6, W100 Laser, W100-2, W10, G6 Inox, RAY10, W4SLG-3, W9, GR18, MultiPulse, Reflex Array, MultiLine, LUT3, KT5, KT8, KT10, CS8 	BEF-KHS-N08	2051607

	Brief description	Type	part no.
reflectors and optics			
	<ul style="list-style-type: none"> • Description: Fine triple reflector, screw connection, suitable for laser sensors • Dimensions: 52 mm 62 mm • Ambient operating temperature: -30 °C ... +65 °C 	P250F	5308843
connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M8, 3-pin, straight, A-coded • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: 0.14 mm² ... 0.5 mm² 	STE-0803-G	6037322

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com